

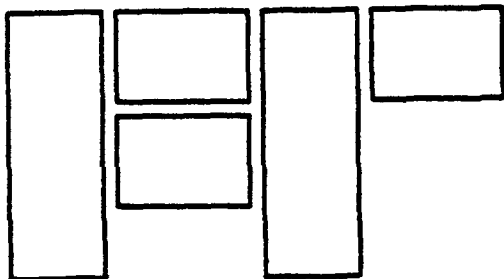
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<p><b>OBJECTIVE:</b> (U) Achieve commercial publication of a handbook (manual) that will, in a step-by-step procedure, guide garment designers in the development of new apparel styles that will be as efficient and economical to manufacture and assemble as the designer's overall concept will allow.</p> <p><b>APPROACH:</b> (U) Make a limited press run of the handbook, distribute copies to educators, etc. for review and comments. Submit also to apparel textbook publishers for inclusion in their lines.</p> <p><b>PROGRESS:</b> (U) All activities have been completed. General response to distributed copies has been favorable but publishers have declined to accept the handbook without extensive revision in order to reach widest possible market.</p> <p>The objectives of this project have not been achieved. The project has been terminated.</p>					
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# FASHION INSTITUTE OF TECHNOLOGY

## RESEARCH REPORT

DESIGN FOR MANUFACTURING AND ASSEMBLY  
IN APPAREL, PART II,  
PRINTING, PUBLISHING, AND DISTRIBUTION

*Fashion Institute of Technology*



94-11045



DLA900-87-D-0016-0009

MARCH 1994

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**ADVANCED APPAREL MANUFACTURING TECHNOLOGY  
FASHION INSTITUTE OF TECHNOLOGY  
DLA900-87-D-0016-0009**

**DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL**

**PART II**

**PRINTING, PUBLISHING, AND DISTRIBUTION**

**FINAL TECHNICAL REPORT A008**

**Debbie Gioello  
Project Leader**

**March 1994**

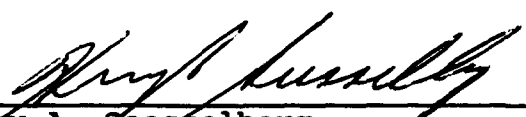
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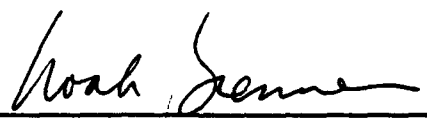
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DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL  
PART II: PRINTING, PUBLISHING, AND DISTRIBUTION

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This report is herewith submitted to the Defense Logistics Agency office (DPMSO), Cameron Station, Alexandria, VA 22304-6100, in accordance with the Contract Data Requirements List, sequence A008.

  
Henry A. Seesselberg,  
Director, Advanced Apparel Manufacturing  
Technology Programs,  
Fashion Institute of Technology

  
Noah Brenner,  
Research Coordinator, Advanced Apparel  
Manufacturing Technology Programs,  
Fashion Institute of Technology

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### **ACKNOWLEDGEMENTS**

The project team wishes to acknowledge and express its special thanks to Mr. Charles Mannino, Manager of the F.I.T. Print Shop, for his invaluable advice, assistance, and participation in the completion of this project.

The project team also thanks the following members of the AAMTD facilities for their many and varied contributions: Henry A. Seesselberg, Director of Advanced Manufacturing Technology Programs; Nge Tung Wong, Administrative Assistant; and, Tammy Oberon, Clerical Assistant.

## **PREFACE**

Design for Manufacturing and Assembly (DFMA) as a concept is defined as the methodology used by product designers which explicitly considers how the products they design will be manufactured.

The overriding purpose of this short term research and development project, Design for Manufacturing and Assembly in Apparel, has been to show how to design a garment for ease and efficiency of manufacture, how to apply the principles of design separately and independently of each of the processes, and to disseminate this information as widely as possible.

In Phase I of this project the project team documented the step-by-step procedures in the development and assembly of a tailored skirt that incorporated suitable military-use styling in five separate and distinctly different environments: sample room; traditional factory; automated plant; custom clothier; and, made-to-measure works. All operations that were performed and deemed necessary to the development of the design, pattern generation, and assembly of the skirt were photographed and documented. The assembly procedures were critically studied and appropriate data was collected in each case. Because of the differences in manufacturing techniques of each environment, the skirt was redesigned for each environment and internal details of the garment were changed in each case to take best advantage of each of the different manufacturing processes. Nonetheless, the overall integrity of each design and the size range of the garments for each study remained constant.

The end result of the Phase I work described above was the production of a prototype of the DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL handbook that illustrates the various processes necessary to design an item of apparel for ease and efficiency in manufacturing in any environment. It is a handbook that is intended to assist and guide apparel designers in utilizing the methodology of designing for ease of manufacture and maximization of the production efficiency that is inherent in the production process that is being used.

In Phase II of the DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL project the project team was charged with achieving the conversion of the prototype handbook developed in Phase I into a semi-finished printed product that could be distributed/circulated within the industry for comments and criticisms with the view toward obtaining commercial publication and distribution as a textbook.

DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL  
PART II: PRINTING, PUBLISHING, AND DISTRIBUTION

Unfortunately, although the comments and criticisms of the in-house printed handbook were for the most part positive, commercial publication of the handbook could not be achieved without drastic revisions of content and format. The report that follows details the Phase II project activities.



## INTRODUCTION

The concept and application of Design for Manufacturing and Assembly, a methodology used by designers which explicitly considers how the product will be made, has received a fair measure of success in the hard goods industries. DFMA, however, has not received any great measure of attention or consideration by the apparel manufacturing industry.

In order to introduce the concepts of Design for Manufacturing and Assembly to the apparel industry, a project team from the Fashion Institute of Technology/Advanced Apparel Manufacturing Technology Demonstration (F.I.T./AAMTD) developed a handbook entitled DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL which details the basic procedures for designing a garment for manufacturing efficiency and provides guidelines for the universal application of Design for Manufacturing and Assembly concepts by apparel industry designers. This work was accomplished under Short Term Research and Development Task DLA900-87-D-0016-0009, Design for Manufacturing and Assembly in Apparel, dated May 17, 1990.

The DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL handbook specifically addresses the designer's role in creating garments for ease of manufacturing and assembling. Assembly procedures and methods of manufacture of a tailored skirt in five different production environments are followed. Design changes that are made in order to best utilize the production capabilities of each production environment are illustrated.

The handbook was fully drafted and a small number of copies were prepared in Phase I for distribution, review, and comment by a select group of industry designers and by appropriate representatives of the military services. There was almost universal approval of the handbook by the reviewers at that time. The project team's own efforts, as well as a press release concerning the limited publication and distribution of the handbook, resulted in some limited trade press coverage and several requests for copies of the handbook to be sent to college professors, high school teachers, and other educators involved in apparel design training and instruction. Requests were also received from apparel designers, industry executives, and two textbook publishers.

DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL  
PART II: PRINTING, PUBLISHING, AND DISTRIBUTION

Phase II of the project was funded on June 18, 1993 to enable the printing and publication of approximately 100 copies of the prototype handbook and their distribution to interested textbook publishers and other requesting parties. It was the objective of Phase II to complete the process of dissemination of DFMA concepts to the apparel industry by distributing the handbook to influential members of the industry, educators, and handbook/textbook publishers. It was hoped that one of the apparel-related textbook publishers would consider inclusion of the handbook in its commercial product line.

**PROJECT PERSONNEL**

The project team consisted of the following personnel from the faculty and staff of the Fashion Institute of Technology.

Debbie Gioello, Professor and Chairperson, Department of Fashion Design - Apparel. As project leader and principal investigator, she supervised all aspects of the Phase II project and participated in their execution.

Noah Brenner, Adjunct Assistant Professor, Textile Design and Marketing Department and F.I.T./AAMTD R&D Projects Coordinator. Assisted the project leader in all facets of the project.

### PRINTING AND DISTRIBUTION OF THE HANDBOOK

The following basic steps were followed by the project team in the printing and distribution of the DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL handbook.

- \* Reviewed and considered all comments and recommendations of Phase I reviewers.
  - Re-edited the handbook and made all changes, corrections, additions, deletions, etc., as deemed appropriate, to text, format, and illustrations that had been developed in Phase I.
- \* Arranged for the in-house printing of the handbook by the Fashion Institute of Technology Print Shop.
  - Contracted for the outside preparation of new printing plates as required by the F.I.T. Print Shop.
  - Arranged to have 100 copies of the handbook printed, collated, and bound by the F.I.T. Print Shop.
  - A copy of the completed handbook is attached as free-standing appendix to this report.
- \* Distributed complimentary copies of the newly printed handbook to educators, manufacturing executives, clothing designers, and publishers who had previously requested them. Also, the project team developed an additional list of educators, industry people, etc. to whom complimentary copies should also be sent.
  - All recipients of the complimentary copies were requested to review their copy of the handbook and comment upon its usefulness and value (comment sheets and stamped, self-addressed envelopes were attached to all letters of transmittal) to them, their students, and/or their organizations.
  - A sample letter of transmittal is reproduced in the Appendix to this report.

- A list of recipients of the handbook is included in the Appendix to this report.
- Copies of all responses received are reproduced in the Appendix to this report.
- \* Sent complimentary copies of the newly printed handbook to the following Government personnel in appreciation of their contributions to its development:
  - Mr. Donald O'Brien, DLA Manufacturing Engineering Branch;
  - Ms. Julie Tsao, DLA Manufacturing Engineering Branch;
  - Capt. Catherine McGinn, U.S. Air Force Clothing Division;
  - Mr. Stephen Israelian, U.S. Army NRD&E Center; and,
  - Mr. Harry Winer, U.S. Navy NCTRF.
- \* Surveyed lists of textbook publishers to determine appropriate targets for discussions regarding large-scale printing and distribution
  - Narrowed contact list to following apparel-oriented publishers
    - Bobbin Blenheim Media Corporation
    - Fairchild Books & Visuals
    - Prentice Hall/Paramount Publishing Education Group
  - (Fairchild and Prentice Hall had previously been contacted during Phase I activities for the same purpose.)
  - Contacted, or recontacted the editorial offices of each of the three above noted publishers and discussed the inclusion of the handbook in their book lists. The results of those discussions are as follows:

Bobbin Blenheim advised that they were discontinuing new textbook publications effective January 1994 and would not, therefore, consider reviewing the handbook.

Both Fairchild Books & Visuals and Prentice Hall/Paramount once again expressed their willingness to review the handbook, each with a view toward acquiring the exclusive rights to the handbook and including it in their book list. Each requested additional copies of the handbook for distribution to their own group of reviewers, primarily college professors and secondary school teachers, for determination of its appropriateness for use as a required college or high school textbook.

The results of the two group-reviews were unsatisfactory to each of the publishers and to the project team: Both sets of reviewers tended to make the same recommendations - that substantial portions of the handbook be rewritten, that new sections be added, and that new/additional illustrations be produced and used. The project team determined that compliance with the recommendations for revision was too large a task to undertake at that time and that its cost, if undertaken, would have been prohibitive. It was concluded that it was not in the best interests of the project to undertake any major changes in the handbook. The prospective publishers were so notified. Consequently, both Fairchild and Prentice Hall declined to proceed with any negotiations that might lead to their adoption of the handbook for commercial publication and distribution.

PROFESSIONAL REVIEWS

In the project team's effort to have the handbook reviewed professionally, contacts were made with the following trade publications:

Apparel Industry Magazine;

Bobbin Magazine;

Daily News Record; and,

Women's Wear Daily.

In each case, the publishers noted that only commercially available publications would be considered for review by their journal. Since the DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL handbook did not meet this criteria none of the noted journals would accept it for review.

**SUMMARY**

The project did not achieve its two primary goals

- \* Complimentary professional reviews
- \* Acceptance for publication by a recognized publisher.

As a result of these failures the project, DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL, PART II, PRINTING, PUBLISHING, AND DISTRIBUTION, is considered to have not been effective and has been terminated.



THE  
EDUCATIONAL  
FOUNDATION  
FOR  
THE FASHION  
INDUSTRIES

Chartered in 1944 to establish the Fashion Institute of Technology

227 West 27th Street  
New York, New York 10001



November 30, 1993

Ms. Mary Stephens  
Chairperson  
Fashion Design Department  
Fashion Institute of Design and Merchandising  
919 South Grand Avenue  
Los Angeles, CA 90015

Dear Ms. Stephens:

When we suggested the production of a handbook, such as the one enclosed, that would illustrate the design and modifying redesign of a garment for its ease and efficiency in manufacturing depending upon the production process, and that would apply the principles of design separately and independently to each of the processes, the responses of most prominent educators and industry executives were very good. Now that the handbook has been completed we would like to get the reaction to it of some of those same prominent educators and industry executives.

It is for this reason that we are attaching a copy of Design for Manufacturing and Assembly in Apparel by F.I.T.'s Debbie Gioello. It would be greatly appreciated if, in the next two weeks, you would review the handbook and jot down your thoughts and impressions, comments and criticisms, as you do so concerning its usefulness in the further education and guidance of fledgling fashion designers, whether they are still studying their craft or already practicing it.

Inasmuch as we do not want to influence your response in any way we are refraining from providing a prepared set of questions to which you would respond. We much prefer that you express yourself freely and without prompting on the comment sheet enclosed in the accompanying stamped self-addressed envelope. All comments will be kept strictly confidential.

- 2 -

We very much appreciate your cooperation and contribution of time and thought in this effort. Since we are a part of the State University of New York, we are unable to provide you with a monetary stipend for your assistance in this project. However, to thank you for your help we would like you to keep the attached copy of the handbook in your personal library. We look forward to your response.

Very truly yours,



Noah Brenner  
Project Coordinator  
Advanced Apparel Manufacturing  
Technology Programs

encl: sase  
comment sheet

cc: H.A. Seesselberg  
D.A. Gioello

dfmasurv.n30

**DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL**

**COMMENT SHEET**

In the space below please express your thoughts and impressions, comments and criticisms concerning the handbook. Place the completed Comment Sheet in the stamped self addressed envelope and drop it in the nearest mailbox. Thank you very much for your cooperation.

## COMPLIMENTARY COPIES

DISTRIBUTION LIST  
DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL HANDBOOK

NAME	COMPANY	ADDRESS	
Acosta, Ms Sonya	Econonic Development Admin	P O Box 362350	San Juan, PR 00936-2350
Appel, Ms Madeline	High School of the Fashn Inds	225 W 24 St	New York, NY 10011
Arena, Mr Al	Fashion Institute of Technology	227 W 27 St	New York, NY 10001
Armoni, Mr Amnon	Fashion Institute of Technology	227 W 27 St	New York, NY 10001
Arsenault, Ms Andrea	School of the Art Inst. of Chicago	37 S Wabash Avenue	Chicago, IL 60603
Bella, Ms Vanessa	Drexel University	3141 Chestnut Street	Philadelphia, PA 19104
Black, Mr Steven	Bauder Fashion College	508 S Center St	Arlington, TX 76010
Blumberg, Ms Barbara	Nassau Community College	1 Education Drive	Garden City, NY 11530
Bratten, Ms Gina	BOCES Westchester	65 Grassland Rd	Valhalla, NY 10595
Brenner, Mr Noah	AAMTD/FIT	227 W 27 St	New York, NY 10001
Brozynski, Mr Dennis	Columbia College	600 S Michigan Avenue	Chicago, IL 60605
Carroll, Ms Kate	Savannah Col of Art & Design	P.O.Box 3146	Savannah, GA 31402-3146
Carwell, Mr Gary	Phila Col Textiles & Science	School House Ln & Henry Ave	Philadelphia, PA 19144
Castellano, Ms C	Liz Claiborne	1441 Broadway	New York, NY 10018
Clark, Ms. Sandra	William Rainey Harper College	1200 W Algonquin Rd	Palatine, IL 60067
Clarke, Ms Nancy	American Uniform Co	P O Box 2130	Cleveland, TN 37320
Cushing, Ms Louise	School of Fashion Dessign	136 Newbury Street	Boston, MA 02116
Dewind, Ms Ellen	Buffalo State College	1300 Elmwood Ave	Buffalo, NY 14222
Else, Ms Janet	Colorado State University		Fort Collins, CO 80523
Farrell, Ms Mary	Ray College of Design	401 N Wabash Ave	Chicago, IL 60611
Ferraro, Mr. Anthony	AAMTD/FIT	227 W 27 St	New York, NY 10001
Gioello, Ms Debbie	Fashion Institute of Technology	227 W 27 St	New York, NY 10001
Granger, Ms Michele	Stephens College	1200 East Broadway	Columbia, MO 65215
Herschelle, Ms Esther	L Salinger Academy of Fashion	101 Jessie St	San Francisco, CA 94105
Hickey, Ms Margaret	Massachusetts College of Art	621 Huntington Ave	Boston, MA 02115
Israelian, Mr Stephen	U S Army	NRD&E Center	Natick, MA 01760
King, Ms Kay	Houston Community College	1300 Holman Avenue	Houston, TX 47704
Kirshen, Ms Pam	Fairchild Books & Visuals	7 W 34 St	New York, NY 10001
Korngruen, Mr. Josef	AAMTD/FIT	227 W 27 St	New York, NY 10001
Kosh, Ms Kiki	Kiki Kosh Associates	11123 Cinderella Ln	Dallas, TX 75229
Lindholm, Ms Christina	University of Cincinnati	2624 Clifton Ave	Cincinnati, OH 45221
McGee, Ms Nancy	Moore College of Art & Design	20th & The Parkway	Philadelphia, PA 19103

NAME	COMPANY	ADDRESS
McGinn, Capt Catherine	U S Air Force	Wright-Patterson AFB Dayton, OH
Morley, Ms Cynthia	Los Angeles Trade-Tech Col	400 W Wasgington Blvd Los Angeles, CA 90015
Nolan, Ms Dolores	Miami-Dade Community College	11011 SW 104 St Miami, FL 33176
O'Brien, Mr Donald	Defense Logistics Agency	Cameron Station Alexandria, VA
O'Rourke-Kaplan, Marion	University of North Texas	Denton, TX 76203
Parsons, Ms Charlene	International Fine Arts Col	Miami, FL 33132
Percopia, Ms Roxanne	Kent State University	Kent, OH 44242-0001
Pike, Ms Glenda	Fashion Institute of Technology	New York, NY 10001
Prinz, Ms Johanna	Palm Beach Comm College	Lake Worth, FL 33461
Purcell, Ms Bebe	Textile/Clothing Tech Corp	Raleigh, NC 27603
Reihing, Mr Joseph	Nassau Community College	Garden City, NY 11530
Robinson, Ms Cherie	L Salinger Academy of Fashion	San Francisco, CA 94105
Rosenthal, Ms Janice	Marymount University	Arlington, VA 22207
Ruiz, Ms Annette	Economic Develop Council	San Juan, PR 00936-2350
Scheiner, Ms Dana	Fairchild Books & Visuals	New York, NY 10001
Seesselberg, Mr Henry	AAMTD/FIT	New York, NY 10001
Simonton, Mr George	George Simonton, Inc.	New York, NY 10018
Singleton, Mr Leigh	Washington University	St. Louis, MO 63130
Stephens, Ms Mary	Fashion Inst of Des & Mds	Los Angeles, CA 90015
Streets, Ms Donna	NCTRF	Philadelphia, PA 19101
Sung, Mr Kayser	Business Press Ltd	Hong Kong, China
Tsao, Ms Julie	Defense Logistics Agency	Alexandria, VA
Walsh, Ms Sandra	NCTRF	Natick, MA 01760
Winer, Mr Harry	U S Navy	Natick, MA 01760
Wolfe, Ms Sharyne	Nassau Community College	Garden City, NY 11530
Wong, Ms Vicky	AAMTD/FIT	New York, NY 10001

RECEIVED

JAN 27 1968

DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL

H.A. SEEGERS

ERS

COMMENT SHEET

In the space below please express your thoughts and impressions, comments and criticisms concerning the handbook. Place the completed Comment Sheet in the stamped self addressed envelope and drop it in the nearest mailbox. Thank you very much for your cooperation.

This handbook appears to be an invaluable tool for the student of fashion. It is clear and thorough, as well as excellently visual which is exceedingly important for the students to grasp the material. It should be especially valuable to the students + schools in areas where access to factories is difficult or limited.

Marion Bourke-Kaplan  
University of North Texas

RECEIVED

JAN 2

H. S. ...

ERG

DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL

COMMENT SHEET

In the space below please express your thoughts and impressions, comments and criticisms concerning the handbook. Place the completed Comment Sheet in the stamped self addressed envelope and drop it in the nearest mailbox. Thank you very much for your cooperation.

I feel the book would be a useful supplementary text for our courses in design and apparel production. Unfortunately the photo reproductions are not clear.

Dolores Nolan  
Associate Professor  
Fashion Studies  
Miami-Dade Community College

1/27/92

## COMMENT SHEET

*Sm. specific:*

- 1214.



Los Angeles  
Trade-Technical  
College

400 WEST WASHINGTON BLVD  
LOS ANGELES, CALIFORNIA 90015  
TELEPHONE (213) 744-9058

THOMAS L. STEVENS, JR.  
President

12 January 1994

Noah Brenner  
Project Coordinator  
Education Foundation for Fashion Industries  
227 West 27th Street  
New York, NY 10001


Dear Mr. Brenner

I have recieved a copy of the handbook Design for Manufacturing and Assembly in Apparel written by Debbie Gioello. I sent the handbook on to our department head of Merchandising, Adrienne Zinn, who teaches a course on Manufacturing in the Apparel area. She has been a manufacturer in Los Angeles for the past 25 years and is currently revising the curriculum in the Merchandising and Design areas. Please see her comments regarding the handbook below:

"A simply and effectively written book. But I suggest that due to the rapid changes in the manufacturing flow and the updates in apparel computer technology, perhaps rather than three-year revisions, a yearly updated manuel accompany the text at a minimal additional fee."

If you would like to contact Ms. Zinn, you may reach her at (213) 744-9476 or address her here at the College.

Sincerely,

  
Cynthia Morley,  
Instructional Assistant  
Fashion Center

  
Adrienne Zinn  
Lead Instructor  
Fashion Merchandising

DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL

COMMENT SHEET

In the space below please express your thoughts and impressions, comments and criticisms concerning the handbook. Place the completed Comment Sheet in the stamped self addressed envelope and drop it in the nearest mailbox. Thank you very much for your cooperation.

12-7- Looked THROUGH your Book quickly and noted it WAS PRIMARILY composed of pictures. This is a NEGATIVE FACTOR Because students have a hard time understanding photos with no lecture & think the book would be a good supplementary book but not a text book

John Brown  
Palm Beach Community Col

1/11/84

DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL

COMMENT SHEET

In the space below please express your thoughts and impressions, comments and criticisms concerning the handbook. Place the completed Comment Sheet in the stamped self addressed envelope and drop it in the nearest mailbox. Thank you very much for your cooperation.

Upon review of "Design For Manufacturing and Assembly in Apparel", I found the book to be thorough, clear, and most informative. The step by step visuals were an excellent way to present the information.

I know that this book will be of help to me, since a good number of my high school students <sup>who</sup> often come up with wonderful, creative ideas, have absolutely no consideration for what is practical, feasible, cost effective, or what is involved in the development of the garment. This book will be a handy teaching and resource guide.

Kudos to Mrs. Gioello.

Sincerely,  
Gina Bratter

12/20/93

RECEIVED

**DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL**

**COMMENT SHEET**

In the space below please express your thoughts and impressions, comments and criticisms concerning the handbook. Place the completed Comment Sheet in the stamped self addressed envelope and drop it in the nearest mailbox. Thank you very much for your cooperation.

I think that the production handbook contains information important to students enrolled in an Apparel Design program. This type of material is unavailable in any of the resource materials I am currently using. However, I feel that the photographs are not clear enough and do not add to the information in the text. The visual material might better be depicted using either slides or a video. With either of these, tight close-ups of vital details would be more evident and supplement the written text. Would it be possible to transfer the visuals to either of these and use the text along with it?

This type of handbook would be very useful in our Apparel Design Seminar course. Please let me know when the finished edition is completed.

Professor Sharyne Wolfe  
Nassau Community College

12/20/93

## DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL

### COMMENT SHEET

In the space below please express your thoughts and impressions, comments and criticisms concerning the handbook. Place the completed Comment Sheet in the stamped self addressed envelope and drop it in the nearest mailbox. Thank you very much for your cooperation.

- Exhibits organized in a realistic setting and approach to manufacturing for students.
- Simple to understand step-by-step design and assembly processes at different levels of manufacturing.
- Great teacher's aid - "Pictures are worth a thousand words".

Here are some suggestions:

- 1) Suggest specialized machine availability
- 2) Manufacturing techniques
- 3) Suggest to students how they might accomodate their designs to production requirements

Louise Cushing  
Pattern Drafting & Grading  
Instructor

The School of Fashion Design  
136 Newbury St.  
Boston, MA 02116

*R. Z. Cushing*  
*President*  
12/20/93

**DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL**

**COMMENT SHEET**


In the space below please express your thoughts and impressions, comments and criticisms concerning the handbook. Place the completed Comment Sheet in the stamped self addressed envelope and drop it in the nearest mailbox. Thank you very much for your cooperation.

Thank you for the opportunity to review Design for Manufacturing and Assembly in Apparel. This manual is an excellent 'walking tour' and in depth view of the various industry production processes. The clear step by step analysis of the design process is further reinforced by the photos to provide an outstanding guide for upper level design students.

Perhaps a summery or questioning process at the end of each chapter, would be helpful to reinforce students understanding of the the various production and cost differences.

I intend to use this manual in my teaching of Apparel Design Seminar, and will add it to the suggested reading list for Garment Construction.

Yours truly,

  
Professor Barbara Blumberg  
Associate Professor Apparel Design  
Nassau Community College

## DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL

### COMMENT SHEET

In the space below please express your thoughts and impressions, comments and criticisms concerning the handbook. Place the completed Comment Sheet in the stamped self addressed envelope and drop it in the nearest mailbox. Thank you very much for your cooperation.

I am sorry to respond a bit late, but the end-of-semester period is always busier than any others during the academic year.

I applaud the concept behind Design for Manufacturing and Assembly in Apparel. I believe it provides more detail than any other book currently on the market. I also favor the largely visual format. That is an effective way to teach design students, because they usually orient themselves by accommodating visual information. This is so important, that we may choose a pattern-making book because of the clarity of the diagrams. The student has a better chance of succeeding if they understand what is expected by visual means.

Having said that, there are two aspects that cut down on the visual effectiveness of Design for Manufacturing and Assembly in Apparel. - No doubt that these problems exist because of minimizing expenses in the execution of the book. The pictures are small, but most difficult to see because they are lacking in adequate contrast. Also, the pages are so thin that while studying one page, the images become confused with what is on the back. If the book could be printed again, I would suggest larger photographs, at least with greater contrast, and opaque, glossy paper.

I would use the book to explain the different manufacturing processes to my students. Not all books offer a special section on custom-fitting, so that is quite helpful.

Thank you for asking my opinion.

Judith K. Rosenthal  
Chair, Fashion Design &  
Fashion Merchandising  
Marquette University



Department of Design,  
Merchandising and Consumer Sciences  
314 Gifford Building  
Fort Collins, Colorado 80523  
(303) 491-1629  
FAX: (303) 491-7252

February 3, 1994

Mr. Noah Brenner, Project Coordinator  
Advanced Apparel Technology  
Technology Programs  
Fashion Institute of Technology  
227 West 27th Street  
New York NY 10001

Dear Mr. Brenner:

This letter is to acknowledge the receipt of the handbook, Design for Manufacturing and Assembly in Apparel. Regretfully, it has taken me longer to respond to your letter than I had anticipated.

I appreciate being sent a copy of the handbook. It appears to be an excellent resource for any aspect of education related to the design field, i.e. from traditional manufacturing to custom and made-to-measure production. It is good to have included as many photographs and visuals as possible.

In our particular setting here at Colorado State University, I would see it as a definite reference book for the Library and might also consider it as a textbook for one of our courses. What is the cost of the handbook? That would help make the decision.

Thanks again for sending me the copy for review.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Janet J. Else".

Janet J. Else  
Assistant Department Head

JJE





CONCILIO DE DISEÑO  
PARA PUERTO RICO

February 16, 1994

Ms. Vicky Wong  
Office Manager  
Fashion Institute of Technology  
227 West, 27th. Street  
New York, NY 10001

RECEIVED  
FEB 22 1994  
H. A. GRESSELBERG

Dear Ms. Wong:

I received a copy of the "Design for Manufacturing and Assembly in Apparel Handbook" in November 22, 1993 for our evaluation.

In our Design room we have two designers, two pattern makers and one grader and all have totally or partially studied the handbook. Our Design Room, an area of the Design Council for Puerto Rico is part of the Economic Development of Administration and develops new lines, patterns and grading for over forty different companies and serves as consulting office for a larger number of companies. We also keep contact with all of the Fashion Design Schools in Puerto Rico and the Vocational Department at the Department of Education.

We all consider the handbook is an excellent resource. This material gets the design students closer to reality, even if he is going to start his own hi-fashion business, knowing production equipment and short-cuts is helpful. Most of the fashion design and pattern making courses offered in Puerto Rico are directed to the self-employment and to made-to measure designs and patterns. What we have experienced is that each design school has its own approach towards design, pattern and garment development and construction, and only a few teachers in these design schools have some experience in manufacturing. When a designer wants to work full-time or free-lance for a manufacturer, he has to adjust designs, fabric, trimmings and patterns to the marketing, cutting and production systems of the manufacturer. It would be a great advantage for him learning about different manufacturing processes, so he can be aware and prepared to satisfy the manufacturers needs.

I particularly found attractive the step by step sequence presentation in pictures, making it easier to follow.

Ms. Vicky Wong  
page-2  
February 16, 1994

María Serrano, one of our designers considers this material too technical and specific for the fashion designer, that if is going to be part of a course it can turn to be confusing, but excellent for a management and production course. She also notes that the first three steps in the SEQUENCE OF PROCESSES IN THE SAMPLE GARMENT DEVELOPMENT (page 2) can vary according to the designer, since some could start by selecting fabric to get the inspiration. She also suggests a more accurate sketch (page 4) including a sketch with construction specifications.

Carmen Vázquez, one of our designers and pattern maker, teaches fashion design and pattern making at Bénédic Schools. She did her own evaluation as follows:

Evaluation of usefulness in fashion design education of the "DESIGN FOR MANUFACTURING AND ASSEMBLY IN APPAREL HANDBOOK".

The following evaluation was produced after thoroughly examining the book, taking into consideration the classroom situation in which student designers don't know much about the different manufacturing environments.

#### EVALUATION

TITLE	Clearly depicts the theme
OBJECTIVES	The "Introduction" clearly states the fundamentals knowledge, concepts, attitudes and skills that should be obtained after studying the book.
MOTIVATION	Highly motivates the student to study and to realize that the process of development and manufacturing will not constrain the designer's creativity, if the designer knows how to adapt the original idea and pattern to ease the manufacturing process; thus obtaining a better end product.

Ms. Vicky Wong  
page-3  
February 16, 1994

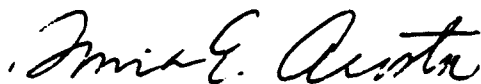
**PRESENTATION** Excellent illustrations and concise explanation throughout the book provide clear understanding of the different environments and processes.

**APPLICATION** After studying the book, the student designer may be able to understand and look forward to the environments in which he will be able to work.

**COMMENTS** This book accomplished its objectives and is a valuable and complete source of information for students.

I hope that our comments help in the total evaluation of this material. If you have any questions, please do not hesitate in contacting me.

Yours truly,



Sonia Acosta  
Supervisor  
Fashion Institute

mgm